

REMARKS

Reconsideration of the pending application is respectfully requested on the basis of the following particulars:

Priority

Applicants note that the Examiner has acknowledged receipt of papers submitted under 35 U.S.C. 119(a)-(d). Applicant, however, wishes to point out that priority based on the documents identified on the Application Data Sheet (ADS) was *not* claimed. Correction of the priority data is being requested in a separate paper.

Rejection of claims 1-6 under 35 U.S.C. § 103(a)

Claims 1 presently stands rejected as unpatentable over Horng et al (U.S. 6,448,675) (Horng '675) in view of Applicant's Admitted Prior Art of Figure 1 in the present application (AAPA). Claims 2-6 are rejected as unpatentable over Horng '675 and AAPA and further in view of Horng (U.S. 6,400,054) (Horng '054). This rejection is respectfully traversed for the following reasons.

Claim 1 has been amended to more clearly define the structure of the present invention, by now reciting that a gap formed between the upper surface of the magnetically conductive member and the lower surface of the balancing magnet is minimized to prevent entry of dust into an interior of the axial tube when the motor is turning. Additionally, claim 1 now recites that the gap is approximately closed, by the magnetic attraction of the magnetically conductive member to the balancing magnet, when the motor is stopped.

It is respectfully submitted that the cited references collectively fail to disclose or suggest each and every limitation of the present invention according to amended claim 1. To establish *prima facie* obviousness of a claimed invention, *all the claim limitations* must be taught or suggested by the prior art. *In re Royka*, 490 F.2d 981, 180 USPQ 580 (CCPA 1974). "*All words in a claim* must be considered in judging the patentability of that claim against the prior art." *In re Wilson*, 424 F.2d 1382, 1385, 165 USPQ 494, 496 (CCPA 1970) (emphasis added).

The cited references fail to disclose or suggest the combination of a magnetically conductive member formed at the top end of an axial tube of a motor stator and a balancing magnet mounted to the shaft seat of the motor rotor, the balancing magnet having a lower surface attracting the upper surface of the magnetically conductive member. Moreover, the cited references fail to disclose or suggest that a gap formed between the balancing magnet and the magnetically conductive member is minimized to prevent entry of dust into the interior of the axial tube during operation of the motor, or that the gap is approximately closed by the magnetic attraction between the balancing magnet and the magnetically conductive member.

As the Examiner correctly notes, Horng '675 fails to teach or suggest a magnetically conductive member mounted at the top end of an axial tube that is part of the motor stator. Instead, the motor's rotor has an induction ring, generally in the form of a central hub of the rotor, which extends downward from a top of the rotor. A magnetically conductive ring is mounted on a bottom surface of the induction ring and a balancing sheet is mounted below the magnetically conductive ring, between the stator and the motor's casing. The position of the magnetically conductive ring on the bottom of the induction ring cannot be simply relocated to the top of the induction ring, because there is no top edge of the induction ring to accommodate the magnetically conductive ring. Neither can the induction ring be rearranged and attached to the stator as the axial tube of the present invention, because to do so would render the Horng '675 motor non-functional.

The Examiner contends that, in view of AAPA, the present invention would be obvious because AAPA shows a magnetically balancing element (a magnetically conductive metal plate) mounted at the top end region of an axial tube. However, this characterization is incorrect in that AAPA fails to show the magnetically balancing element (magnetically conductive metal plate) mounted *to the top end* of the axial tube and functioning in cooperation with a second magnetically balancing element (balancing magnet) that is mounted to the shaft seat of the motor rotor. Instead, AAPA shows a magnetically conductive metal plate that is magnetized by the pole plates of the motor stator.

Thus, AAPA operates by using the pole plates of the motor stator to magnetize the magnetically conductive metal plate, and not a separate balancing magnet, an entirely different operation than the present invention wherein the magnetically conductive member magnetically interacts with the balancing magnet. If the proposed modification or combination of the prior art would change the principle of operation of the prior art invention being modified, then the teachings of the references are not sufficient to render the claims *prima facie* obvious. *In re Ratti*, 270 F.2d 810, 123 USPQ 349 (CCPA 1959).

While the Examiner states that it would be obvious to modify the AAPA motor by reversing the location of the magnetically conducting member and the balancing magnet, this hypothesis fails because the AAPA has no balancing magnet. Further, reversing the location of the magnetically conducting member and the pole plates of the stator, which would place the pole plates of the stator onto the rotor in place of the magnetically conducting member, simply won't work. If proposed modification would render the prior art invention being modified unsatisfactory for its intended purpose, then there is no suggestion or motivation to make the proposed modification. *In re Gordon*, 733 F.2d 900, 221 USPQ 1125 (Fed. Cir. 1984).

Neither AAPA nor Horng '675 disclose or suggest the magnetically conducting member and the balancing magnet cooperatively located proximate to the top end of the axial tube member of the motor stator as required by the present invention. It follows, therefore, that neither AAPA nor Horng '675 disclose or suggest that a gap between the magnetically conducting member and the balancing magnet is minimized during operation of the motor for the prevention of dust into the interior of the axial tube. It also follows that neither AAPA nor Horng '675 disclose or suggest that the gap is approximately closed, by magnetic attraction of the members, when the motor is stopped.

AAPA shows only a magnetically conductive metal plate, and not a cooperating balancing magnet. Therefore, AAPA simply cannot show a gap formed therebetween. Horng '675 discloses a magnetic balancing member mounted onto the bottom of an induction ring, and a cooperating magnetic balancing ring mounted below the stator, between the stator and the casing. By reference to Figs. 2 and 3 of Horng '675, it is clear

that the motor rotor and, therefore, the induction ring and a magnetic balancing member mounted on the induction ring, are suspended and supported above the stator by the motor's shaft. The shaft prevents movement of the rotor downward toward the stator and lower casing. Therefore, magnetic balancing members are prevented from moving toward one another to close a gap therebetween. Absent the teachings of the present application in hindsight, a person of ordinary skill in the art could not have conceived of the arrangement of the balancing magnet and the magnetically conductive member of the present invention for minimizing a gap therebetween for the purpose of excluding dust from the interior of the axial tube.

For at least these reasons, it is respectfully submitted that claim 1 as amended is allowable over the cited references Withdrawal of the rejection is respectfully requested.

Claims 2-6 are rejected in further view of Horng '054. While Horng '054 discloses a flanged axial tube used to secure a motor's stator to a support member or casing, Horng '054 is entirely silent on any manner of magnetically balancing the motor. Therefore, Horng '054 fails to supplement the deficiencies of the teachings of Horng '675 and AAPA in any manner regarding claim 1. It is respectfully submitted that, because claims 2-6 depend from claim 1, and because claim 1 is allowable for the above stated reasons, claims 2-6 are also allowable.

Claims 7 and 8

Applicant notes that the recent Office Action failed to address claims 7 and 8. Because claims 7 and 8 depend from claim 1, which Applicant submits is now allowable, and because no additional references have been cited in support of any rejection of these claims, it is respectfully submitted that claims 7 and 8 are allowable.

Conclusion

In view of the amendments to the claims, and in further view of the foregoing remarks, it is respectfully submitted that the application is in condition for allowance. Accordingly, it is requested that claims 1-8 be allowed and the application be passed to issue.

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Art Unit: 2834

If any issues remain that may be resolved by a telephone or facsimile communication with the Applicant's attorney, the Examiner is invited to contact the undersigned at the numbers shown.

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Respectfully submitted,

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